

**VARIATION OF THE INTERPLANETARY MAGNETIC FIELD,  
COSMIC RADIATION AND SOLAR ACTIVITY.**

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Interplanetary magnetic field (IMF) during the tree solar cycles have been searched for short and long-term variations with a view to correlating them with solar activity (green coranal lines intensities) and cosmic radiation. The seasonal, 1 - year, 2, 5, 11 - and 22 - year IMF, solar activity and cosmic radiation variations were investigated on the basis of the experimental data of stratosperic sound, world network neutron monitor stations, interplanetary magnetic field tension up to 1 a.u. and green coronal lines intensities for the period from 1957 until 2000 year. The data of the forbush effects and flares were excluded for this period. The investigation confirmed the existence of above periodicities in the considered objects. On the basis of the comparison results obtained for the IMF, solar activity and cosmic radiation and also theoretical calcalculations the possible mechanisms of the arising indicated variations are presented.